Amended claims attached to the IPER

CLAIMS

1. Portable electronic object (101) including
- a first user interface (IU1)
- at least one second user interface (IU2, IU3) and
- a management unit (108) for said user interfaces including first (109a) and at least second (109b, 109c) processing means respectively associated with said first and at least second user interfaces,
- means for measuring (103, 107, 115) at least one external parameter linked to at least one of said user interfaces, said measuring means being connected to said management unit,
- comparison means (112a, 112b, 112c) for comparing a level of said measured external parameter (Bm, Lm, Om) to a predefined level (Bo, Lo, Oo) of said external parameter, and
- control means (113) arranged for activating or deactivating said processing means associated with said user interface linked to the measured external parameter as a function of the result of the comparison,

characterised in that the portable electronic object further comprises

- means for selecting a user interface from among said user interfaces whose associated processing means are not deactivated, in accordance with a determined criterion.

2. Portable electronic object according to claim 1, wherein

- said first user interface includes sound signal reception means (103), said first associated processing means being sound signal processing means,
- said second user interface includes control members (106) and display means (107), said second associated processing means being control member processing means,
- said measuring means include
  - an ambient noise sensor (103) for measuring an ambient noise level (Bm), said management unit also including first comparison means (112a) for comparing said ambient noise level to a predefined noise level (Bo), said control means being arranged for deactivating the sound signal processing means when the ambient noise level exceeds the predefined noise level (Bm > Bo),
    - o characterised in that the measuring means further comprise
  - a light sensor (107) for measuring a received light level (Lm), said management unit also including second comparison means (112b) for

comparing said received light level to a predefined light level (Lo), said control means also being arranged for deactivating said control member processing means when the received light level passes below the predefined light level (Lm < Lo).

3. Portable electronic object according to claim 2, characterised in that said control members are a tactile crystal (106) including at least two electrodes, in that said portable object also includes

- means for detecting activation of each of said at least two electrodes, said detection means being connected to said management unit,

and in that said control means are also arranged for deactivating said control member processing means (109b) when simultaneous activation of said at least two electrodes is detected.

4. Portable electronic object according to any of claims 2 or 3, characterised in that it further includes

- a third user interface (IU3) including radio-frequency signal reception means (115) and said display means (107),
- said management unit also including radio-frequency signal processing means (109c)

and in that said control means are also arranged for deactivating said radio-frequency signal processing means when the received light level passes below the predefined light level.

5. Portable electronic object according to any of claims 2 to 4, characterised in that it further includes

- an unwanted frequency sensor (115) for measuring an unwanted frequency level (Om), said control unit including third comparison means (112c) for comparing said measured unwanted frequency level to a predefined frequency level (Oo), said control means also being arranged for deactivating the radio-frequency signal processing means when the unwanted frequency level exceeds the predefined frequency level (Om > Oo).

6. Electronic object according to claim 5, characterised in that it further includes means for measuring (118) an acceleration level of said portable object, fourth comparison means (112d) for comparing the measured acceleration level (Am) to a predefined acceleration level (Ao), said management unit control means being capable of deactivating the various user interface processing means when the measured level exceeds the predefined level (Am > Ao).

7. Portable electronic object according to any of claims 4 to 6, characterised in that it further includes

- warning means (114a, 114b, 114c) activated to warn the user in the event of deactivation of said sound signal (109a), control member (109b) or radio-frequency signal (109c) processing means.

8. Portable electronic object according to any of claims 2 to 7, characterised in that said display means in association with a diode are used as the light sensor, in that said sound signal reception means are also used as the ambient noise sensor and in that the radio-frequency signal reception means are also used as the unwanted frequency sensor.

9. Portable electronic object (101) according to claim 1 characterised in that the application predetermined criterion is selected in accordance to the following criterions :

- the energy consumption level of each of the user interfaces that can be used, that having the lowest consumption being selected.

- the estimated data introduction mean speed, that offering the highest speed being selected.

10. Portable electronic object according to claim 7, characterised in that said warning means include

- first warning means of the acoustic alarm type (114a),
- second warning means of the vibrating alarm type (114b), and
- third warning means of the flashing alarm type (114c),

and in that said management unit further includes

- means for selecting (117) between said first, second and third warning means as a function of at least one predetermined criterion.

11. Portable electronic object according to any of the preceding claims, characterised in that the portable object is a diary watch.

12. Portable electronic object according to any of the preceding claims, characterised in that the management unit also includes means for determining an interface based on a fuzzy logic method when no interface can a priori be used.

13. Method of determining a user interface of a portable electronic object (1) including a first user interface, at least a second user interface, a management unit for said user interfaces including first and at least second processing means respectively associated to said first and at least second user interfaces, the method including the following operations:

- carrying out the measurement of at least one external parameter linked to at least one of said user interfaces by means of a sensor for sensing the level of the external parameter, the sensor being connected to the management unit;

- comparing the measured external parameter level to a predefined external parameter level;

- deactivating said processing means associated to the user interface linked to the measured external parameter in accordance to the result of the comparison;

characterised in that the method includes the following additional operation :

- selecting a user interface among the user interfaces whose associated processing means are not activated in accordance with a predetermined criterion.

14. Method of determining a user interface according to claim 13 of a portable electronic object according to claim 2, characterised in that for the first user interface the following operations are carried out :

- carrying out a measurement of the ambient noise level (Bm) by means of an ambient noise sensor connected to the management unit;

- comparing the measured ambient noise level to a predefined noise level (Bo);

- deactivating said first processing means when the measured ambiant noise level exceeds the predefined noice level (Bm>Bo);

and in that the following operations are carried out for the second user interface:

- carrying out a measurement of the received light level (Lm) by means of a light sensor connected to said management unit;
- comparing the measured received light level to a predefined light level (Lo);
- deactivating said second and third processing means when the measured received light level passes below the predefined light level (Lm < Lo).

15. Method of determining a user interface of a portable object according to claim 14, said portable object wherein said second user interface includes a tactile crystal including at least two electrodes and display means and wherein a third user interface is provided, said third user interface including radio-frequency signal reception means and said display means, said management unit also comprising second tactile crystal processing means and third radiofrequency signal processing means, characterised in that the method also includes the following operations when the measured received light level exceeds the predefined light level (Lm ≥ Lo):

- detecting the activation of each of said at least two electrodes by means of a detector connected to said management unit;

- deactivating said second processing means when simultaneous activation of said at least two electrodes is detected;
- carrying out a measurement of the unwanted frequencies (Om) by means of an unwanted frequency sensor connected to the management unit;
- comparing the measured unwanted frequency level to a predefined unwanted frequency level (Oo);
- deactivating said third processing means when the measured unwanted frequency level exceeds the predefined unwanted frequency level (OM > Oo).

16. Method of determining a user interface of a portable object according to claim 15, characterised in that it includes a preliminary operation consisting for the user in:

- defining pre-settings for indicating the processing means to be automatically deactivated;

and in that the measuring or detection operations relating to the user interfaces whose processing means are deactivated, are not carried.

17. Method of determining a user interface of a portable object according to claim 15 or 16, characterised in that it includes the following subsequent operations of:

- calculating an interpretation rate of said processing means associated with the selected user interface,

- comparing the calculated interpretation rate with a predefined minimum interpretation rate,

- deactivating the processing means of the selected user interface if the calculated interpretation rate is less than the minimum interpretation rate,

and in that the measuring or detection operations relating to the user interfaces whose processing means are not deactivated, are carried out again.

18. Method of determining a user interface of a portable object according to claim 17, characterised in that it further includes, if no user interface can be used, an operation consisting in:

- warning the user that none of the user interfaces are usable via warning means.

19. Method of determining a user interface of a portable object according to claim 17 or 18, characterised in that periodically the measuring or detection operations relating to the user interfaces whose processing means are not automatically deactivated, are carried out again.

20. Method of determining a user interface of a portable object according to any of claims 13 to 19, characterised in that if none of the interfaces can a priori be

used, the management unit determines an interface on the basis of a fuzzy logic method.